FIGURE 1A

```
-243  TGACCTCGGGGCAGGTCCTGGTGCAGAGCGTCGCCAAGGACGCCGAGAGGGAGGCGGGAT  -184
-183  TGCCCAGACATCCTTCAGCGAAGTGCATGTGTGTTTGTAAACCATCGTTGGCTGTCGGGA  -124
-123  GACCGCGAGGACCGGTCCAGGCTGCGGCGGAGTCGAGGGCGAGGGAGAGGCCGCGTGAGT   -64
 -63  GAGCAGAGTCCAGAGCCGTGCGCCCCCAGAACTGCGCGTCCGCCCCGTGCACCCCCGCGC    -4
  -3  GCCATGCCCAGTTGCCCCGCGCGCTCTGCTACGGGCCCGCTCTCCATCATGGGCCTCATG    57
  58  CCGCTCACCAAGGAGGTGGCCAAGGGCAGCATCGGGCGCGGTGTGCTCCCCGCCGTGGAA   117
 118  CTGGCCATCGAGCAGATCCGCAACGAGTCACTCCTGCGCCCCTACTTCCTCGACCTGCGG   177
 178  CTCTATGACACGGAGTGCGACAACGCAAAAGGGTTGAAAGCCTTCTACGATGCGATAAAA   237
 238  TACGGGCCGAACCACTTGATGGTGTTTGGAGGCGTCTGTCCATCCGTCACATCCATCATT   297
 298  GCAGAGTCCCTCCAAGGCTGGAATCTGGTGCAGCTTTCTTTTGCTGCAACCACGCCTGTT   357
 358  CTAGCCGATAAGAAAAAATACCCTTATTTCTTTCGGACCGTCCCATCAGACAATGCGGTG   417
 418  AATCCAGCCATTCTGAAGTTGCTCAAGCACTACCAGTGGAAGCGCGTGGGCACGCTGACG   477
 478  CAAGACGTTCAGAGGTTCTCTGAGGTGCGGAATGACCTGACTGGAGTTCTGTATGGCGAG   537
```

FIGURE 1B

538	GACATTGAGATTTCAGACACCGAGAGCTTCTCCAACGATCCCTGTACCAGTGTCAAAAAG	597
598	CTGAAGGGGAATGATGTGCGGATCATCCTTGGCCAGTTTGACCAGAATATGGCAGCAAAA	657
658	GTGTTCTGTTGTGCATACGAGGAGAACATGTATGGTAGTAAATATCAGTGGATCATTCCG	717
718	GGCTGGTACGAGCCTTCTTGGTGGGAGCAGGTGCACACGGAAGCCAACTCATCCCGCTGC	777
778	CTCCGGAAGAATCTGCTTGCTGCCATGGAGGGCTACATTGGCGTGGATTTCGAGCCCCTG	837
838	AGCTCCAAGCAGATCAAGACCATCTCAGGAAAGACTCCACAGCAGTATGAGAGAGAGTAC	897
898	AACAACAAGCGGTCAGGCGTGGGGCCCAGCAAGTTCCACGGGTACGCCTACGATGGCATC	957
958	TGGGTCATCGCCAAGACACTGCAGAGGGCCATGGAGACACTGCATGCCAGCAGCCGGCAC	1017
1018	CAGCGGATCCAGGACTTCAACTACACGGACCACACGCTGGGCAGGATCATCCTCAATGCC	1077
1078	ATGAACGAGACCAACTTCTTCGGGGTCACGGGTCAAGTTGTATTCCGGAATGGGGAGAGA	1137
1138	ATGGGGACCATTAAATTTACTCAATTTCAAGACAGCAGGGAGGTGAAGGTGGGAGAGTAC	1197
1198	AACGCTGTGGCCGACACACTGGAGATCATCAATGACACCATCAGGTTCCAAGGATCCGAA	1257
1258	CCACCAAAAGACAAGACCATCATCCTGGAGCAGCTGCGGAAGATCTCCCTACCTCTCTAC	1317

FIGURE 1C

1318	AGCATCCTCTCTGCCCTCACCATCCTCGGGATGATCATGGCCAGTGCTTTTCTCTTCTTC	1377
1378	AACATCAAGAACCGGAATCAGAAGCTCATAAAGATGTCGAGTCCATACATGAACAACCTT	1437
1438	ATCATCCTTGGAGGGATGCTTTCCTATGCTTCCATATTTCTCTTTGGCCTTGATGGATCC	1497
1498	TTTGTCTCTGAAAAGACCTTTGAAACACTTTGCACCGTCAGGACCTGGATTCTCACCGTG	1557
1558	GGCTACACGACCGCTTTTGGGGCCATGTTTGCAAAGACCTGGAGAGTCCACGCCATCTTC	1617
1618	AAAAATGTGAAAATGAAGAAGAAGATCATCAAGGACCAGAAACTGCTTGTGATCGTGGGG	1677
1678	GGCATGCTGCTGATCGACCTGTGTATCCTGATCTGCTGGCAGGCTGTGGACCCCCTGCGA	1737
1738	AGGACAGTGGAGAAGTACAGCATGGAGCCGGACCCAGCAGGACGGGATATCTCCATCCGC	1797
1798	CCTCTCCTGGAGCACTGTGAGAACACCCATATGACCATCTGGCTTGGCATCGTCTATGCC	1857
1858	TACAAGGGACTTCTCATGTTGTTCGGTTGTTTCTTAGCTTGGGAGACCCGCAACGTCAGC	1917
1918	ATCCCCGCACTCAACGACAGCAAGTACATCGGGATGAGTGTCTACAACGTGGGGATCATG	1977
1978	TGCATCATCGGGGCCGCTGTCTCCTTCCTGACCCGGGACCAGCCCAATGTGCAGTTCTGC	2037
2038	ATCGTGGCTCTGGTCATCATCTTCTGCAGCACCATCACCCTCTGCCTGGTATTCGTGCCG	2097

FIGURE 1D

2098	AAGCTCATCACCCTGAGAACAAACCCAGATGCAGCAACGCAGAACAGGCGATTCCAGTTC	2157
2158	ACTCAGAATCAGAAGAAAGAAGATTCTAAAACGTCCACCTCGGTCACCAGTGTGAACCAA	2217
2218	GCCAGCACATCCCGCCTGGAGGGCCTACAGTCAGAAAACCATCGCCTGCGAATGAAGATC	2277
2278	ACAGAGCTGGATAAAGACTTGGAAGAGGTCACCATGCAGCTGCAGGACACACCAGAAAAG	2337
2338	ACCACCTACATTAAACAGAACCACTACCAAGAGCTCAATGACATCCTCAACCTGGGAAAC	2397
2398	TTCACTGAGAGCACAGATGGAGGAAAGGCCATTTTAAAAAATCACCTCGATCAAAATCCC	2457
2458	CAGCTACAGTGGAACACAACAGAGCCCTCTCGAACATGCAAAGATCCTATAGAAGATATA	2517
2518	AACTCTCCAGAACACATCCAGCGTCGGCTGTCCCTCCAGCTCCCCATCCTCCACCACGCC	2577
2578	TACCTCCCATCCATCGGAGGCGTGGACGCCAGCTGTGTCAGCCCCTGCGTCAGCCCCACC	2637
2638	GCCAGCCCCCGCCACAGACATGTGCCACCCTCCTTCCGAGTCATGGTCTCGGGCCTGTAA	2697
2698	GGGTGGGAGGCCTGGGCCCGGGGCCTCCCCCGTGACAGAACCACACTGGGCAGAGGGGTC	2757
2758	TGCTGCAGAAACACTGTCGGCTCTGGCTGCGGAGAAGCTGGGCACCATGGCTGGCCTCTC	2817
2818	AGGACCACTCGGATGGCACTCAGGTGGACAGGACGGGGCAGGGGGAGACTTGGCACCTGA	2877

FIGURE 1E

```
2878  CCTCGAGCCTTATTTGTGAAGTCCTTATTTCTTCACAAAGAAGAGGAACGGAAATGGGAC  2937
2938  GTCTTCCTTAACATCTGCAAACAAGGAGGCGCTGGGATATCAAACTTGCAAAAAAAAAAA  2997
2998  AAAA                                                          3001
```

FIGURE 2A

1	M	P	S	C	P	A	R	S	A	T	G	P	L	S	I	M	G	L	M	P	20
21	L	T	K	E	V	A	K	G	S	I	G	R	G	V	L	P	A	V	E	L	40
41	A	I	E	Q	I	R	N	E	S	L	L	R	P	Y	F	L	D	L	R	L	60
61	Y	D	T	E	C	D	N	A	K	G	L	K	A	F	Y	D	A	I	K	Y	80
81	G	P	N	H	L	M	V	F	G	G	V	C	P	S	V	T	S	I	I	A	100
101	E	S	L	Q	G	W	N	L	V	Q	L	S	F	A	A	T	T	P	V	L	120
121	A	D	K	K	K	Y	P	Y	F	F	R	T	V	P	S	D	N	A	V	N	140
141	P	A	I	L	K	L	L	K	H	Y	Q	W	K	R	V	G	T	L	T	Q	160
161	D	V	Q	R	F	S	E	V	R	N	D	L	T	G	V	L	Y	G	E	D	180
181	I	E	I	S	D	T	E	S	F	S	N	D	P	C	T	S	V	K	K	L	200
201	K	G	N	D	V	R	I	I	L	G	Q	F	D	Q	N	M	A	A	K	V	220
221	F	C	C	A	Y	E	E	N	M	Y	G	S	K	Y	Q	W	I	I	P	G	240

FIGURE 2B

241	W	Y	E	P	S	W	W	E	Q	V	H	T	E	A	N	S	S	R	C	L	260
261	R	K	N	L	L	A	A	M	E	G	Y	I	G	V	D	F	E	P	L	S	280
281	S	K	Q	I	K	T	I	S	G	K	T	P	Q	Q	Y	E	R	E	Y	N	300
301	N	K	R	S	G	V	G	P	S	K	F	H	G	Y	A	Y	D	G	I	W	320
321	V	I	A	K	T	L	Q	R	A	M	E	T	L	H	A	S	S	R	H	Q	340
341	R	I	Q	D	F	N	Y	T	D	H	T	L	G	R	I	I	L	N	A	M	360
361	N	E	T	N	F	F	G	V	T	G	Q	V	V	F	R	N	G	E	R	M	380
381	G	T	I	K	F	T	Q	F	Q	D	S	R	E	V	K	V	G	E	Y	N	400
401	A	V	A	D	T	L	E	I	I	N	D	T	I	R	F	Q	G	S	E	P	420
421	P	K	D	K	T	I	I	L	E	Q	L	R	K	I	S	L	P	L	Y	S	440
441	I	L	S	A	L	T	I	L	G	M	I	M	A	S	A	F	L	F	F	N	460
461	I	K	N	R	N	Q	K	L	I	K	M	S	S	P	Y	M	N	N	L	I	480

FIGURE 2C

481	I	L	G	G	M	L	S	Y	A	S	I	F	L	F	G	L	D	G	S	F	500
501	V	S	E	K	T	F	E	T	L	C	T	V	R	T	W	I	L	T	V	G	520
521	Y	T	T	A	F	G	A	M	F	A	K	T	W	R	V	H	A	I	F	K	540
541	N	V	K	M	K	K	K	I	I	K	D	Q	K	L	L	V	I	V	G	G	560
561	M	L	L	I	D	L	C	I	L	I	C	W	Q	A	V	D	P	L	R	R	580
581	T	V	E	K	Y	S	M	E	P	D	P	A	G	R	D	I	S	I	R	P	600
601	L	L	E	H	C	E	N	T	H	M	T	I	W	L	G	I	V	Y	A	Y	620
621	K	G	L	L	M	L	F	G	C	F	L	A	W	E	T	R	N	V	S	I	640
641	P	A	L	N	D	S	K	Y	I	G	M	S	V	Y	N	V	G	I	M	C	660
661	I	I	G	A	A	V	S	F	L	T	R	D	Q	P	N	V	Q	F	C	I	680
681	V	A	L	V	I	I	F	C	S	T	I	T	L	C	L	V	F	V	P	K	700
701	L	I	T	L	R	T	N	P	D	A	A	T	Q	N	R	R	F	Q	F	T	720

FIGURE 2D

721	Q	N	Q	K	K	E	D	S	K	T	S	T	S	V	T	S	V	N	Q	A	740
741	S	T	S	R	L	E	G	L	Q	S	E	N	H	R	L	R	M	K	I	T	760
761	E	L	D	K	D	L	E	E	V	T	M	Q	L	Q	D	T	P	E	K	T	780
781	T	Y	I	K	Q	N	H	Y	Q	E	L	N	D	I	L	N	L	G	N	F	800
801	T	E	S	T	D	G	G	K	A	I	L	K	N	H	L	D	Q	N	P	Q	820
821	L	Q	W	N	T	T	E	P	S	R	T	C	K	D	P	I	E	D	I	N	840
841	S	P	E	H	I	Q	R	R	L	S	L	Q	L	P	I	L	H	H	A	Y	860
861	L	P	S	I	G	G	V	D	A	S	C	V	S	P	C	V	S	P	T	A	880
881	S	P	R	H	R	H	V	P	P	S	F	R	V	M	V	S	G	L			898

FIGURE 3A

```
   1  ATGGCTTCCCCGCCGAGCTCCGGGCAGCCCCGGCCGCCGCCGCCGCCGCCGCCCGCG   60
  61  CGCCTGCTGCTGCCCCTGCTGCTGTCGCTGCTGCTGTGGTTGGCGCCCGGGGCCTGGGGC  120
 121  TGGACGCGGGGCGCCCCCCGGCCGCCGCCCAGCAGCCCGCCGCTCTCCATCATGGGCCTC  180
 181  ATGCCGCTCACCAAGGAGGTGGCCAAGGGCAGCATCGGGCGCGGCGTGCTCCCCGCCGTG  240
 241  GAGCTAGCCATCGAGCAGATCCGCAACGAGTCACTCCTGCGCCCCTACTTCCTGGACCTG  300
 301  CGACTCTATGACACCGAGTGTGACAATGCAAAGGGACTGAAAGCCTTCTATGACGCAATA  360
 361  AAGTATGGGCCGAACCATTTGATGGTGTTTGGAGGCGTCTGTCCGTCTGTCACATCTATT  420
 421  ATCGCGGAGTCCCTCCAAGGCTGGAATCTGGTGCAGCTTTCCTTCGCCGCCACCACGCCT  480
 481  GTTCTTGCGGATAAGAAGAAGTACCCGTATTTCTTCCGGACGGTGCCGTCAGACAACGCG  540
 541  GTGAACCCCGCCATCCTGAAGCTCCTGAAGCACTTCCGCTGGCGGCGTGTGGGCACACTC  600
 601  ACGCAGGACGTGCAGCGCTTCTCCGAGGTGAGGAATGACCTGACTGGGGTTCTGTATGGG  660
 661  GAAGATATTGAGATCTCAGACACAGAGAGTTTCTCCAATGATCCCTGCACCAGCGTCAAA  720
 721  AAGCTCAAGGGGAATGACGTGCGGATCATCCTTGGCCAGTTTGACCAGAATATGGCAGCA  780
 781  AAAGTCTTCTGTTGTGCCTTCGAGGAGAGCATGTTTGGCAGCAAGTACCAGTGGATCATC  840
```

FIGURE 3B

```
 841  CCGGGATGGTACGAGCCTGCGTGGTGGGAGCAGGTGCATGTGGAGGCCAATTCCTCACGC  900
 901  TGCCTGCGCAGAAGCCTCCTGGCTGCCATGGAAGGTTACATCGGAGTGGACTTTGAGCCC  960
 961  CTGAGCTCCAAACAAATCAAGACCATCTCAGGGAAGACTCCACAGCAGTATGAAAGAGAG 1020
1021  TACAACAGCAAACGTTCAGGCGTGGGGCCCAGCAAGTTCCATGGGTACGCCTACGATGGG 1080
1081  ATCTGGGTCATCGCCAAGACCCTACAGAGGGCCATGGAGACACTGCATGCCAGTAGCAGG 1140
1141  CACCAGCGGATCCAGGACTTCAACTACACAGACCACACGCTGGGCAAAATCATCCTCAAT 1200
1201  GCCATGAACGAGACCAACTTCTTCGGGGTCACGGGTCAAGTTGTGTTCCGGAACGGGGAG 1260
1261  AGAATGGGAACCATTAAATTTACTCAATTTCAAGACAGCAGAGAGGTGAAGGTCGGCGAA 1320
1321  TACAACGCGGTGGCTGACACACTGGAGATCATCAATGACACCATAAGGTTCCAGGGGTCC 1380
1381  GAGCCACCCAAGGACAAGACCATCATTCTGGAGCAGCTTCGGAAGATCTCGCTTCCACTG 1440
1441  TATAGCATCCTGTCCGCTCTCACCATCCTCGGCATGATCATGGCCAGCGCCTTCCTCTTC 1500
1501  TTCAACATCAAGAACCGGAACCAAAAGCTGATTAAGATGTCAAGCCCCTACATGAACAAC 1560
1561  CTCATCATCCTGGGAGGAATGCTGTCCTATGCATCCATCTTCCTCTTTGGCCTCGATGGG 1620
1621  TCCTTCGTCTCAGAAAAGACCTTTGAAACACTCTGCACGGTCCGGACCTGGATTCTCACC 1680
```

FIGURE 3C

1681	GTGGGCTACACAACTGCCTTTGGGGCCATGTTTGCAAAGACCTGGAGGGTCCATGCCATC	1740
1741	TTCAAAAATGTGAAGATGAAGAAGAAGATCATCAAAGACCAGAAGCTGCTTGTGATTGTG	1800
1801	GGGGGCATGCTGCTCATCGACCTGTGCATCCTGATCTGTTGGCAGGCTGTGGACCCCCTG	1860
1861	CGGAGGACAGTAGAGAGGTACAGCATGGAGCCGGACCCAGCAGGCCGGGACATCTCCATC	1920
1921	CGCCCATTGCTGGAACACTGCGAAAACACCCACATGACCATCTGGCTTGGCATTGTCTAC	1980
1981	GCCTACAAGGGGCTCCTCATGCTATTCGGTTGTTTCTTGGCATGGGAAACCCGCAATGTG	2040
2041	AGCATCCCTGCCCTCAACGACAGCAAGTACATCGGCATGAGTGTGTACAATGTGGGGATC	2100
2101	ATGTGCATCATCGGGGCTGCTGTCTCCTTCCTGACGCGTGACCAGCCCAACGTGCAGTTC	2160
2161	TGCATCGTGGCCCTGGTCATCATCTTCTGCAGCACCATCACTCTCTGCCTGGTGTTTGTG	2220
2221	CCAAAGCTCATTACTCTGAGGACAAACCCTGACGCAGCCACTCAGAACAGGCGGTTCCAG	2280
2281	TTCACACAGAACCAGAAGAAAGAAGATTCGAAGACCTCCACTTCAGTCACCAGCGTGAAC	2340
2341	CAGGCGAGCACGTCACGCCTGGAGGGACTGCAGTCAGAAAACCACCGCCTTCGAATGAAG	2400
2401	ATCACAGAGCTGGACAAAGACTTGGAAGAAGTCACCATGCAGCTACAAGACACACCAGAG	2460
2461	AAGACCACATACATCAAACAGAATCACTACCAAGAGCTCAACGACATCCTCAGCTTGGGC	2520

FIGURE 3D

2521	AACTTCACAGAGAGCACAGATGGAGGAAAGGCCATTCTAAAAAATCACCTCGATCAAAAC	2580
2581	CCCCAGCTCCAGTGGAACACGACAGAGCCCTCAAGAACATGCAAAGACCCCATAGAAGAC	2640
2641	ATCAACTCCCCGGAGCACATCCAGCGCCGGCTGTCGCTCCAGCTCCCCATCCTTCACCAC	2700
2701	GCCTACCTCCCATCCATCGGAGGCGTGGATGCCAGCTGCGTCAGCCCCTGTGTCAGCCCT	2760
2761	ACCGCCAGCCCTCGCCACAGACACGTACCACCCTCCTTCCGAGTCATGGTCTCGGGCCTG	2820
2821	TAG	2823

FIGURE 4A

1	M	A	S	P	P	S	S	G	Q	P	R	P	P	P	P	P	P	P	P	A	20
21	R	L	L	L	P	L	L	L	S	L	L	L	W	L	A	P	G	A	W	G	40
41	W	T	R	G	A	P	R	P	P	P	S	S	P	P	L	S	I	M	G	L	60
61	M	P	L	T	K	E	V	A	K	G	S	I	G	R	G	V	L	P	A	V	80
81	E	L	A	I	E	Q	I	R	N	E	S	L	L	R	P	Y	F	L	D	L	100
101	R	L	Y	D	T	E	C	D	N	A	K	G	L	K	A	F	Y	D	A	I	120
121	K	Y	G	P	N	H	L	M	V	F	G	G	V	C	P	S	V	T	S	I	140
141	I	A	E	S	L	Q	G	W	N	L	V	Q	L	S	F	A	A	T	T	P	160
161	V	L	A	D	K	K	K	Y	P	Y	F	F	R	T	V	P	S	D	N	A	180
181	V	N	P	A	I	L	K	L	L	K	H	F	R	W	R	R	V	G	T	L	200
201	T	Q	D	V	Q	R	F	S	E	V	R	N	D	L	T	G	V	L	Y	G	220
221	E	D	I	E	I	S	D	T	E	S	F	S	N	D	P	C	T	S	V	K	240
241	K	L	K	G	N	D	V	R	I	I	L	G	Q	F	D	Q	N	M	A	A	260

FIGURE 4B

261	K	V	F	C	C	A	F	E	E	S	M	F	G	S	K	Y	Q	W	I	I	280
281	P	G	W	Y	E	P	A	W	W	E	Q	V	H	V	E	A	N	S	S	R	300
301	C	L	R	R	S	L	L	A	A	M	E	G	Y	I	G	V	D	F	E	P	320
321	L	S	S	K	Q	I	K	T	I	S	G	K	T	P	Q	Q	Y	E	R	E	340
341	Y	N	S	K	R	S	G	V	G	P	S	K	F	H	G	Y	A	Y	D	G	360
361	I	W	V	I	A	K	T	L	Q	R	A	M	E	T	L	H	A	S	S	R	380
381	H	Q	R	I	Q	D	F	N	Y	T	D	H	T	L	G	K	I	I	L	N	400
401	A	M	N	E	T	N	F	F	G	V	T	G	Q	V	V	F	R	N	G	E	420
421	R	M	G	T	I	K	F	T	Q	F	Q	D	S	R	E	V	K	V	G	E	440
441	Y	N	A	V	A	D	T	L	E	I	I	N	D	T	I	R	F	Q	G	S	460
461	E	P	P	K	D	K	T	I	I	L	E	Q	L	R	K	I	S	L	P	L	480
481	Y	S	I	L	S	A	L	T	I	L	G	M	I	M	A	S	A	F	L	F	500
501	F	N	I	K	N	R	N	Q	K	L	I	K	M	S	S	P	Y	M	N	N	520
521	L	I	I	L	G	G	M	L	S	Y	A	S	I	F	L	F	G	L	D	G	540

FIGURE 4C

541	S	F	V	S	E	K	T	F	E	T	L	C	T	V	R	T	W	I	L	T	560
561	V	G	Y	T	T	A	F	G	A	M	F	A	K	T	W	R	V	H	A	I	580
581	F	K	N	V	K	M	K	K	K	I	I	K	D	Q	K	L	L	V	I	V	600
601	G	G	M	L	L	I	D	L	C	I	L	I	C	W	Q	A	V	D	P	L	620
621	R	R	T	V	E	R	Y	S	M	E	P	D	P	A	G	R	D	I	S	I	640
641	R	P	L	L	E	H	C	E	N	T	H	M	T	I	W	L	G	I	V	Y	660
661	A	Y	K	G	L	L	M	L	F	G	C	F	L	A	W	E	T	R	N	V	680
681	S	I	P	A	L	N	D	S	K	Y	I	G	M	S	V	Y	N	V	G	I	700
701	M	C	I	I	G	A	A	V	S	F	L	T	R	D	Q	P	N	V	Q	F	720
721	C	I	V	A	L	V	I	I	F	C	S	T	I	T	L	C	L	V	F	V	740
741	P	K	L	I	T	L	R	T	N	P	D	A	A	T	Q	N	R	R	F	Q	760
761	F	T	Q	N	Q	K	K	E	D	S	K	T	S	T	S	V	T	S	V	N	780
781	Q	A	S	T	S	R	L	E	G	L	Q	S	E	N	H	R	L	R	M	K	800
801	I	T	E	L	D	K	D	L	E	E	V	T	M	Q	L	Q	D	T	P	E	820

FIGURE 4D

821	K	T	T	Y	I	K	Q	N	H	Y	Q	E	L	N	D	I	L	S	L	G	840
841	N	F	T	E	S	T	D	G	G	K	A	I	L	K	N	H	L	D	Q	N	860
861	P	Q	L	Q	W	N	T	T	E	P	S	R	T	C	K	D	P	I	E	D	880
881	I	N	S	P	E	H	I	Q	R	R	L	S	L	Q	L	P	I	L	H	H	900
901	A	Y	L	P	S	I	G	G	V	D	A	S	C	V	S	P	C	V	S	P	920
921	T	A	S	P	R	H	R	H	V	P	P	S	F	R	V	M	V	S	G	L	940

FIGURE 5A

1	M	P	S	C	P	A	R	S	A	T	G	P	L	S	I	M	G	L	M	P	20
21	L	T	K	E	V	A	K	G	S	I	G	R	G	V	L	P	A	V	E	L	40
41	A	I	E	Q	I	R	N	E	S	L	L	R	P	Y	F	L	D	L	R	L	60
61	Y	D	T	E	C	D	N	A	K	G	L	K	A	F	Y	D	A	I	K	Y	80
81	G	P	N	H	L	M	V	F	G	G	V	C	P	S	V	T	S	I	I	A	100
101	E	S	L	Q	G	W	N	L	V	Q	L	S	F	A	A	T	T	P	V	L	120
121	A	D	K	K	K	Y	P	Y	F	F	R	T	V	P	S	D	N	A	V	N	140
141	P	A	I	L	K	L	L	K	H	Y	Q	W	K	R	V	G	T	L	T	Q	160
161	D	V	Q	R	F	S	E	V	R	N	D	L	T	G	V	L	Y	G	E	D	180
181	I	E	I	S	D	T	E	S	F	S	N	D	P	C	T	S	V	K	K	L	200
201	K	G	N	D	V	R	I	I	L	G	Q	F	D	Q	N	M	A	A	K	V	220
221	F	C	C	A	Y	E	E	N	M	Y	G	S	K	Y	Q	W	I	I	P	G	240
241	W	Y	E	P	S	W	W	E	Q	V	H	T	E	A	N	S	S	R	C	L	260
261	R	K	N	L	L	A	A	M	E	G	Y	I	G	V	D	F	E	P	L	S	280
281	S	K	Q	I	K	T	I	S	G	K	T	P	Q	Q	Y	E	R	E	Y	N	300
301	N	K	R	S	G	V	G	P	S	K	F	H	G	Y	A	Y	D	G	I	W	320

FIGURE 5B

```
321  V I A K T L Q R A M E T L H A S S R H Q  340
341  R I Q D F N Y T D H T L G R I I L N A M  360
361  N E T N F F G V T G Q V V F R N G E R M  380
381  G T I K F T Q F Q D S R E V K V G E Y N  400
401  A V A D T L E I I N D T I R F Q G S E P  420
                                    ┌─────
421  P K D K T I I L E Q L R K I S L P L Y S  440
     ──────────I──────────────────────────────
441  I L S A L T I L G M I M A S A F L F F N  460
     ┌──────────────────────────────┌─────────
461  I K N R N Q K L I K M S S P Y M N N L I  480
     ──────────II─────────────────────────────
481  I L G G M L S Y A S I F L F G L D G S F  500
```

FIGURE 5C

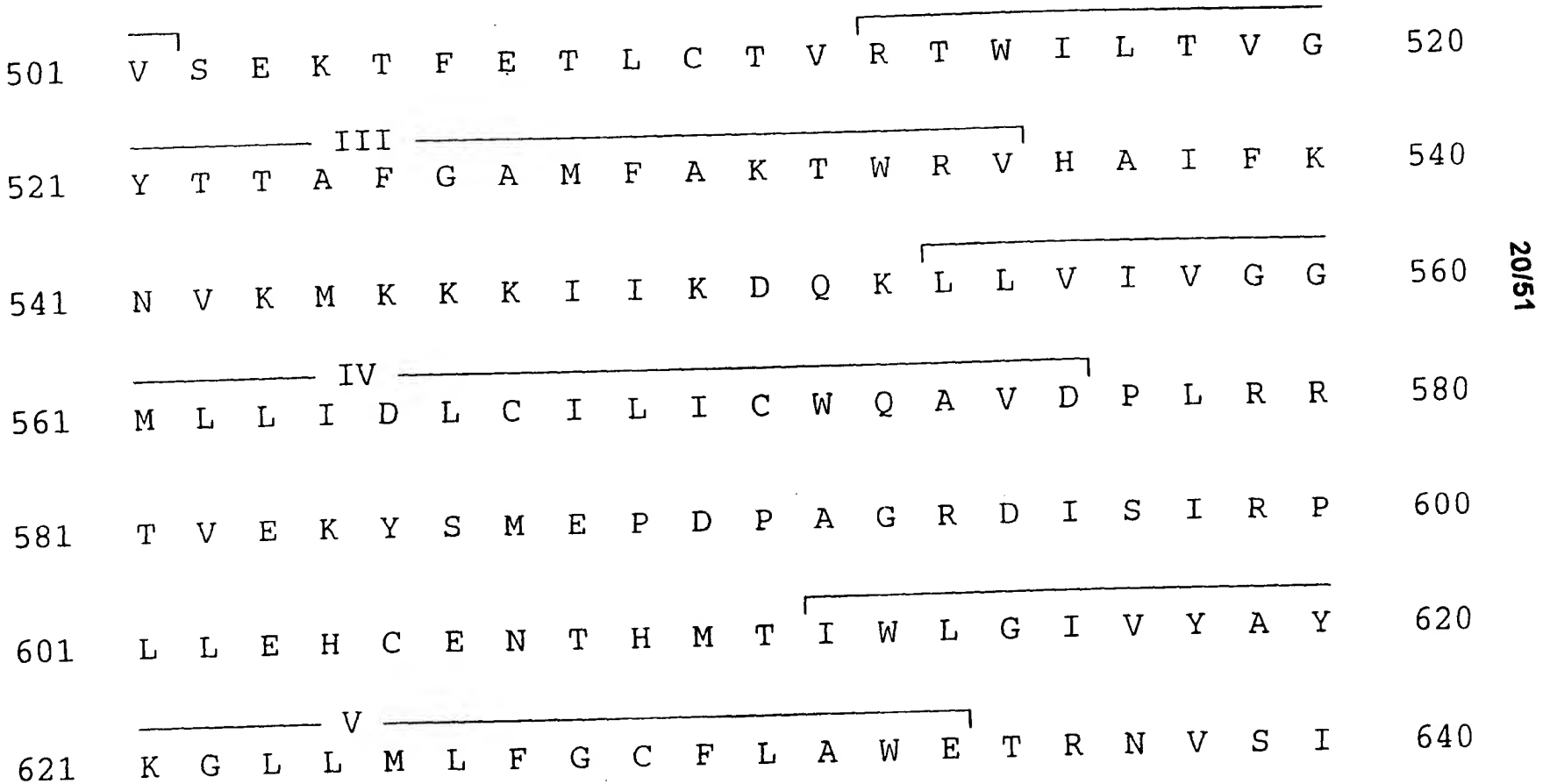


FIGURE 5D

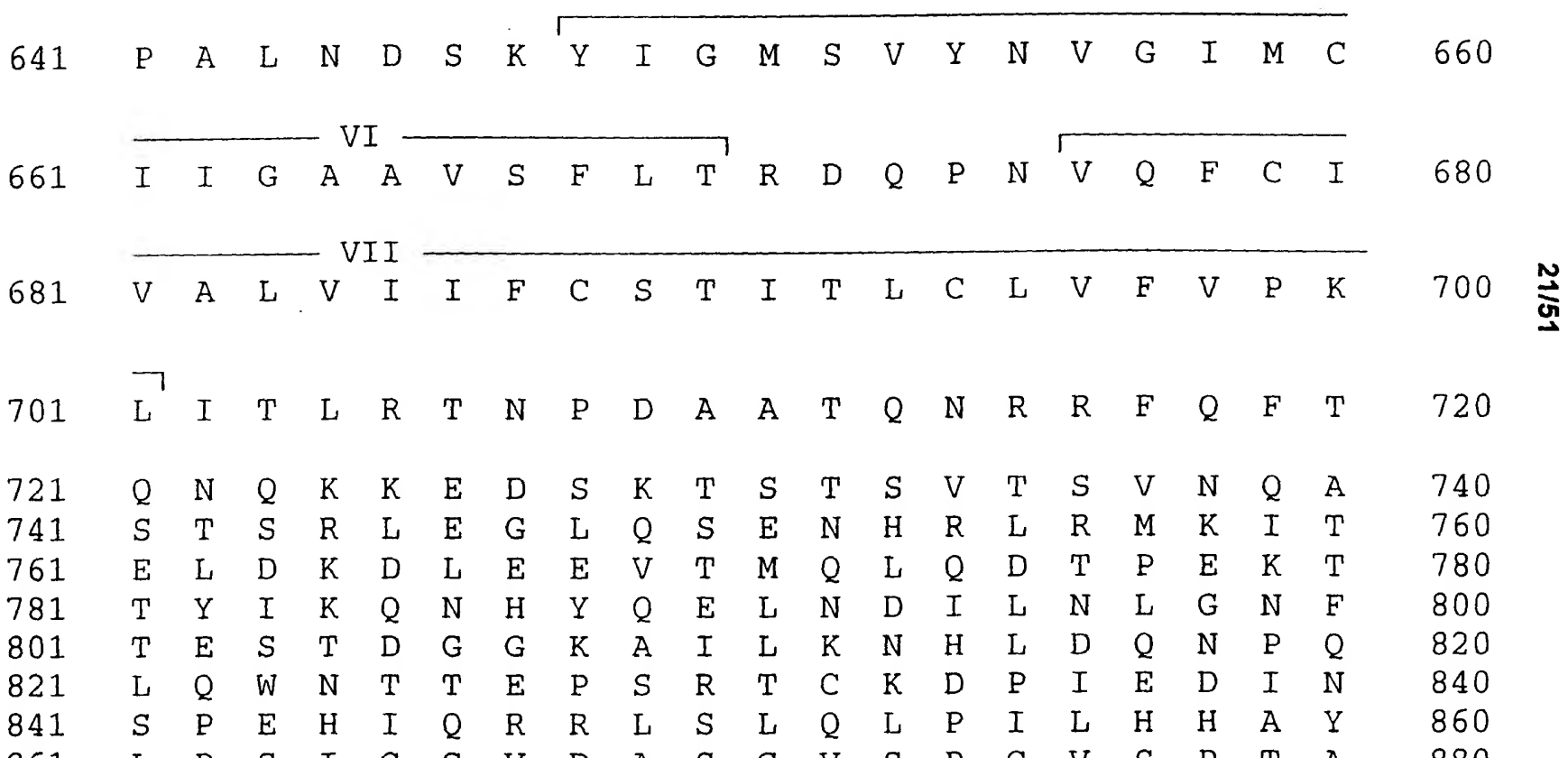


Figure 6A

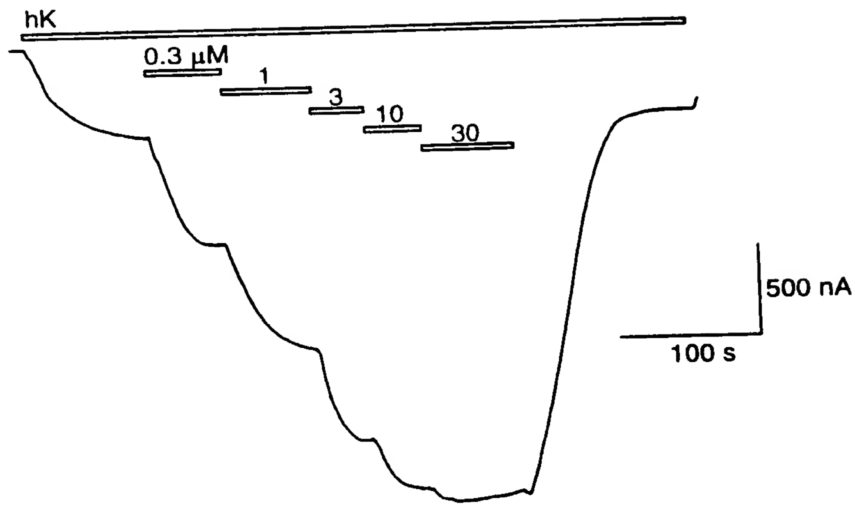


Figure 6B

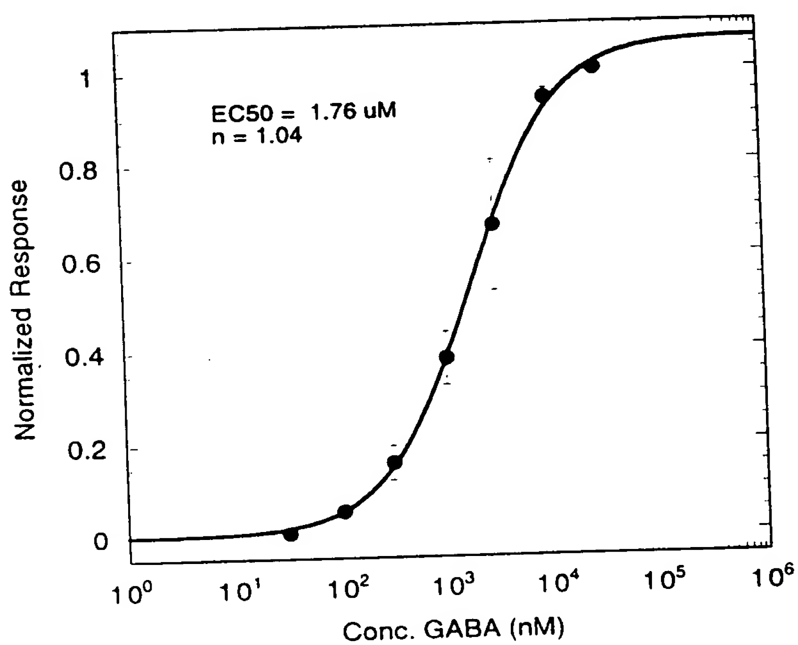


Figure 7

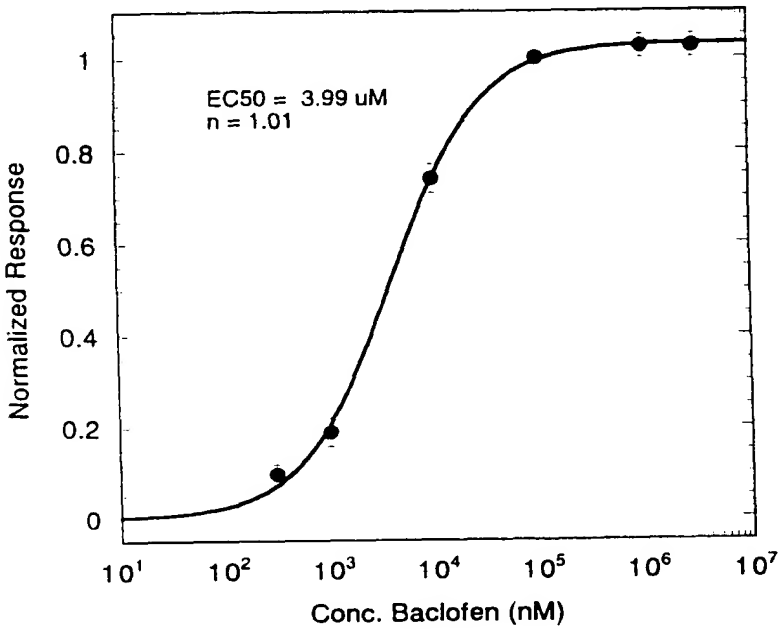


Figure 8

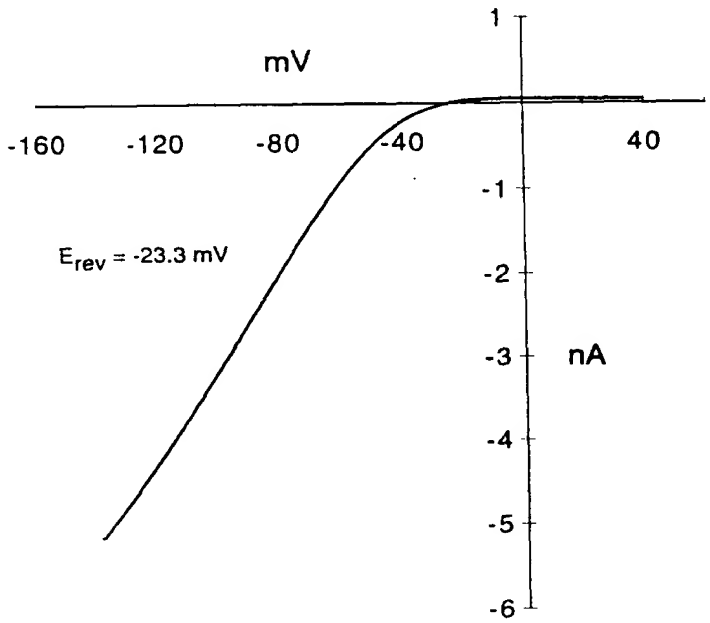


Figure 9A

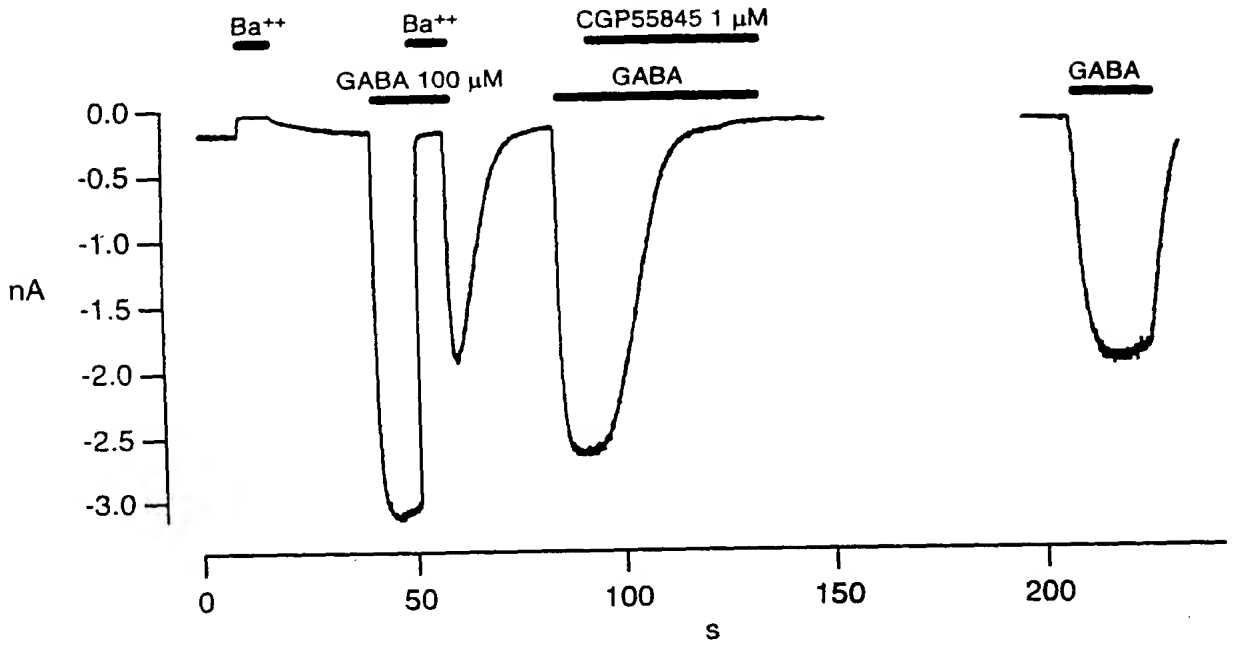


Figure 9B

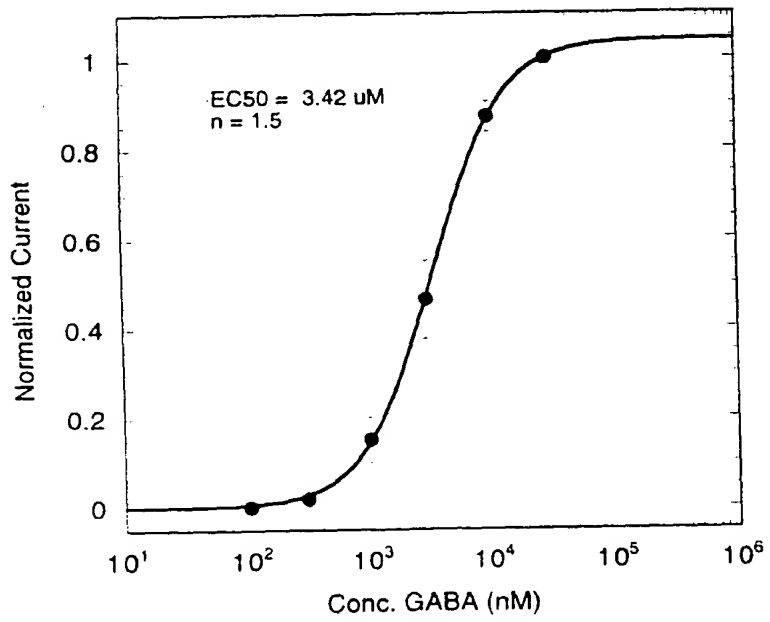


Figure10

rGABA$_B$R2 MASPPSSGQPRPPPPPPPPARLLLPLLLSLLLWLAPGAWGWTRGAPRPPPSSPP.....LSIMGLMPLTK 65
rGABA$_B$R1b ..........MGPGGPCTPVGWPLPLLLVMAAGVAPVWASHSPHLPRPHPRVPPHPSSERRAVYIGALFP 60

rGABA$_B$R2 EVAKGSIGRGVLPAVELAIEQIRN.ESLLRPYFLDLRLYDTECDNAKGLKAFYDAIKYGPNHLMVFGGVC 134
rGABA$_B$R1b MSGGWPGGQACQPAVEMALEDVNSRRDILPDYELKLIHHDSKCDPGQATKYLYELLYNDPIKIILMPG.C 129

rGABA$_B$R2 PSVTSIIAESLQGWNLVQLSFAATTPVLADKKKYPYFFRTVPSDNAVNPAILKLLKHFRWRRVGTLTQDV 204
rGABA$_B$R1b SSVSTLVAEAARMWNLIVLSYGSSSPALSNRQRFPTFFRTHPSATLHNPTRVKLFEKWGWKKIATIQQTT 199

rGABA$_B$R2 QRFSEVRNDLTGVLYGEDIEISDTESFSNDPCTSVKKLKGNDVRIILGQFDQNMAAKVFCCAFEESMFGS 274
rGABA$_B$R1b EVFTSTLDDLEERVKEAGIEITFRQSFFSDPAVPVKNLKRQDARIIVGLFYETEARKVFCEVYKERLFGK 269

rGABA$_B$R2 KYQWIIPGWYEPAWWEQVHVEANSSRCLRRSLLAAMEGYIGVDFEPLSSKQIKTISGKTPQQYEREYNSK 344
rGABA$_B$R1b KYVWFLIGWYADNWFKTYDPSIN...CTVEEMTEAVEGHITTEIVMLNPANTRSISNMTSQEFV.EKLTK 335

rGABA$_B$R2 RSGVGPSKFHGY.....AYDGIWVIAKTLQRAMETLHASSRHQRIQDFNYTDHTLGKIILNAMNETNFFG 409
rGABA$_B$R1b RLKRHPEETGGFQEAPLAYDAIWALALALNKTSGGGGRSG..VRLEDFNYNNQTITDQIYRAMNSSSFEG 403

rGABA$_B$R2 VTGQVVF.RNGERMGTIKFTQFQDSREVKVGEYNAVADTLEIINDTIRFQGSEPPKDKTIILEQLRKISL 478
rGABA$_B$R1b VSGHVVFDASGSRMAWTLIEQLQGGSYKKIGYYDSTKDDLS.WSKTDKWIGGSPPADQTLVIKTFRFLSQ 472

rGABA$_B$R2 PLYSILSALTILGMIMASAFLFFNIKNRNQKLIKMSSPYMNNLIILGGMLSYASIFLFGLDGSFVSEKTF 548
rGABA$_B$R1b KLFISVSVLSSLGIVLAVVCLSFNIYNSHVRYIQNSQPNLNNLTAVGCSLALAAVFPLGLDGYHIGRSQF 542

rGABA$_B$R2 ETLCTVRTWILTVGYTTAFGAMFAKTWRVHAIFKNVKMKK...KIIKDQKLLVIVGGMLLIDLCILICWQ 615
rGABA$_B$R1b PFVCQARLWLLGLGFSLGYGSMFTKIWWVHTVFTKKEEKKEWRKTLEPWKLYATVGLLVGMDVLTLAIWQ 612

rGABA$_B$R2 AVDPLRRTVERYSMEPDPAGRDISIRPLLEHCENTHMTIWLGIVYAYKGLLMLFGCFLAWETRNVSIPAL 685
rGABA$_B$R1b IVDPLHRTIETFAKEEPKEDIDVSILPQLEHCSSKKMNTWLGIFYGYKGLLLLLGIFLAYETKSVSTEKI 682

rGABA$_B$R2 NDSKYIGMSVYNVGIMCIIGAAVSFLTRDQPNVQFCIVALVIIFCSTITLCLVFVPKLITLRTNPDAATQ 755
rGABA$_B$R1b NDHRAVGMAIYNVAVLCLITAPVTMILSSQQDAAFAFASLAIVFSSYITLVVLFVPKMRRLITRGE.... 748

rGABA$_B$R2 NRRFQFTQNQKKEDSKTSTSVTSVNQASTSRLEGLQSENHRLRMKITELDKDLEEVTMQLQDTPEKTTYI 825
rGABA$_B$R1b ......WQSETQDTMKTGSS.TNNNEEEKSRL..LEKENRELEKIIAEKEERVSELRHQLQSRQQLRSRR 809

rGABA$_B$R2 KQNHYQELNDILSLGNFTESTDGGKAILKNHLDQNPQLQWNTTEPSRTCKDPIEDINSPEHIQRRLSLQL 895
rGABA$_B$R1b HPPTPPDPSGGLPRGPSEPPDRLSCDGSRVHLLYK*................................ 845

rGABA$_B$R2 PILHHAYLPSIGGVDASCVSPCVSPTASPRHRHVPPSFRVMVSGL*...................... 940

Figure 11A

Figure 11B

Figure 11C

Figure 11D

Figure 12A

Figure 12B

Figure 13A

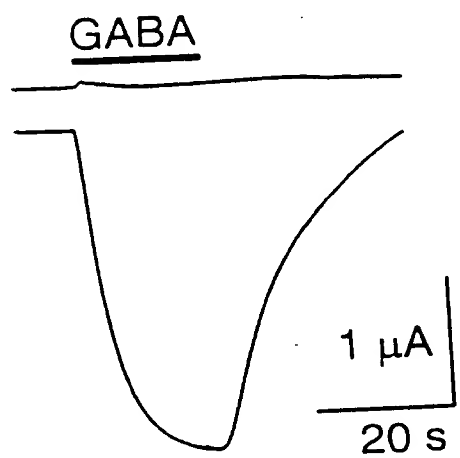


Figure 13B

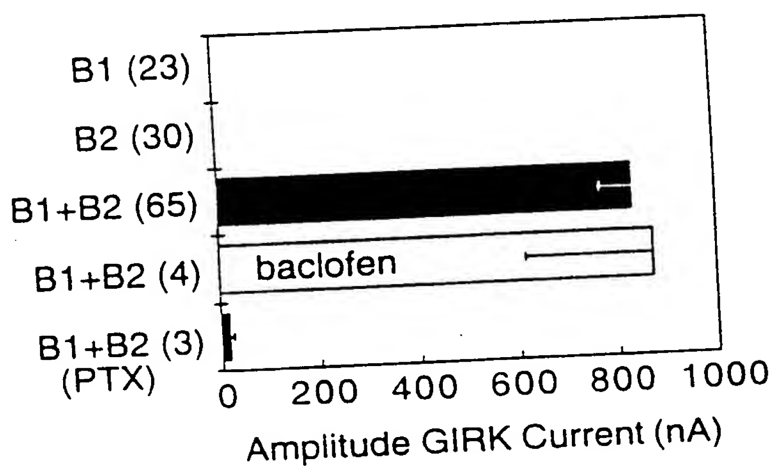


Figure 14A

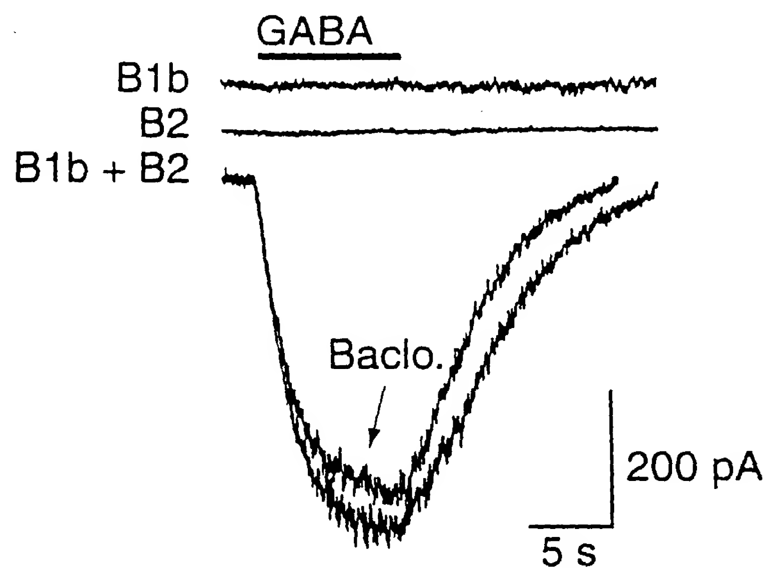


Figure 14B

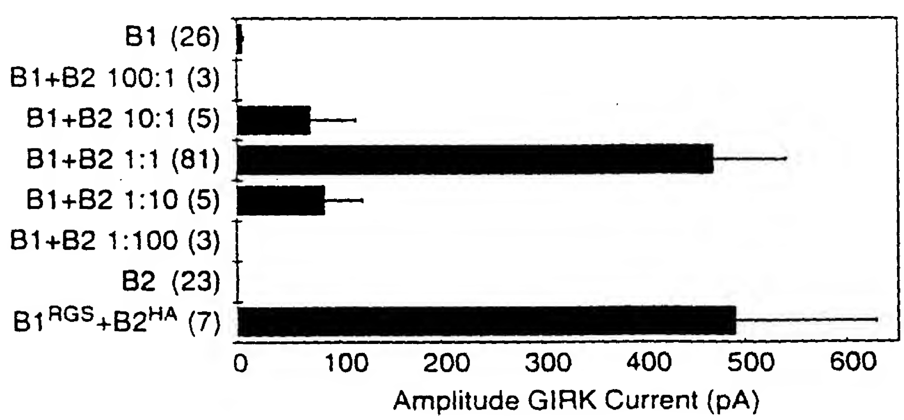


Figure 15A

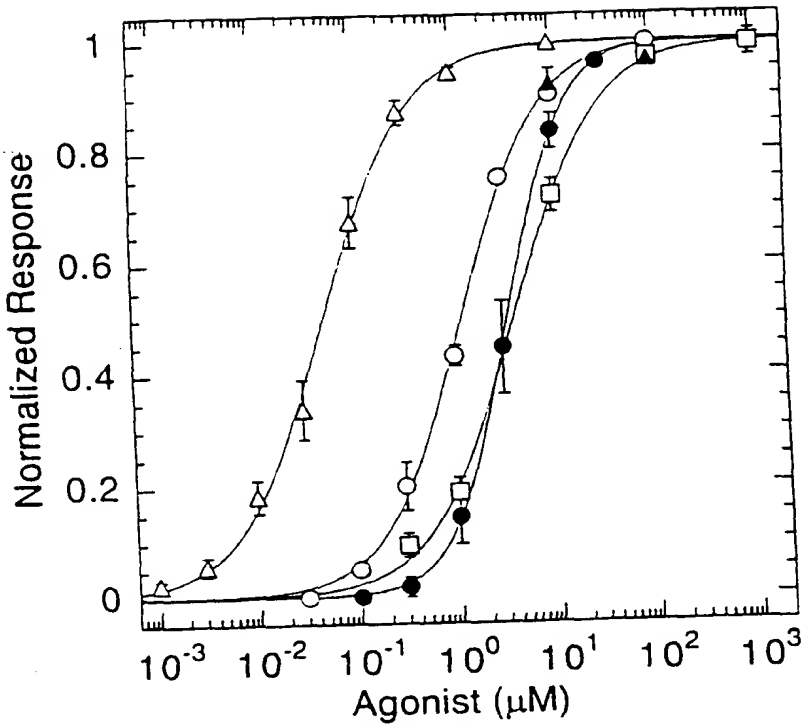


Figure 15B

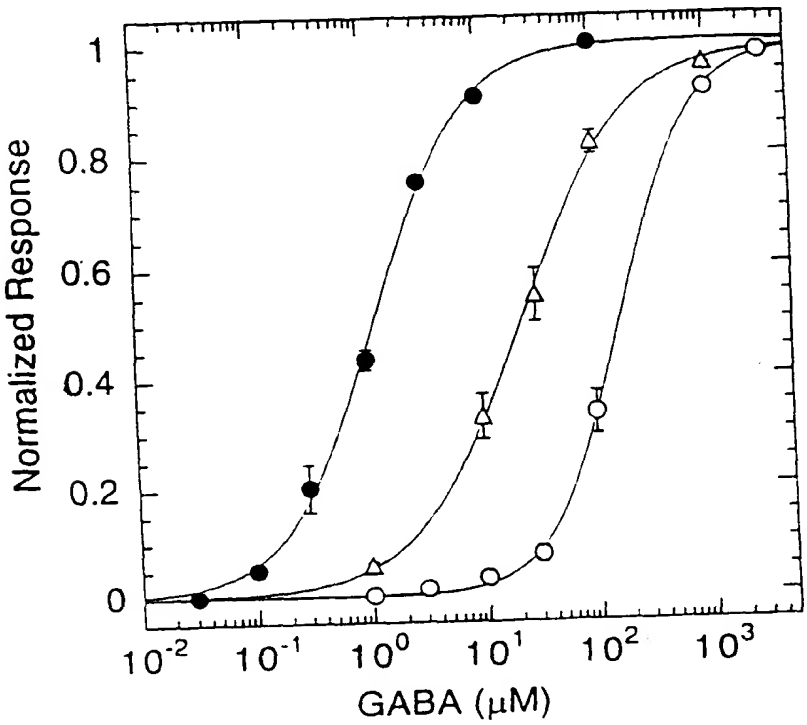


Figure 16

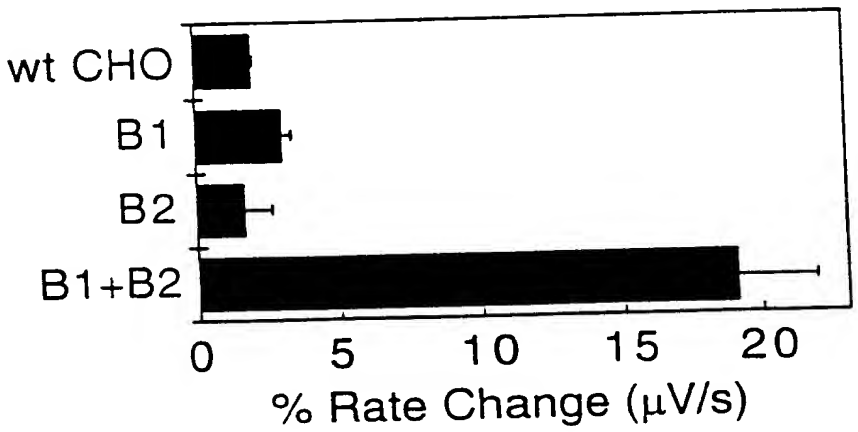


Figure 17A

Figure 17B

Figure 17C

Figure 17D

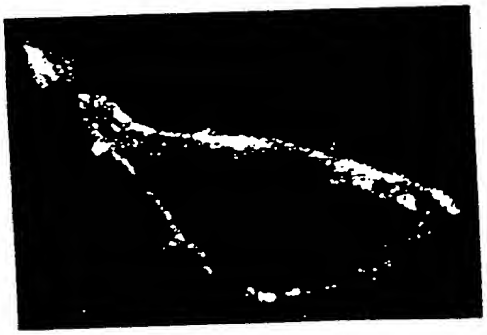


Figure 18A

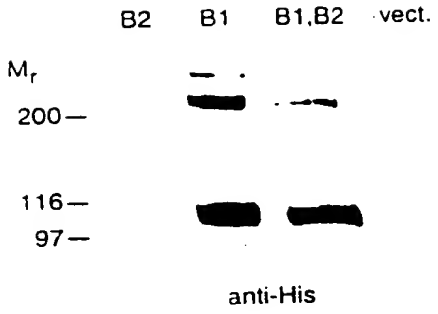
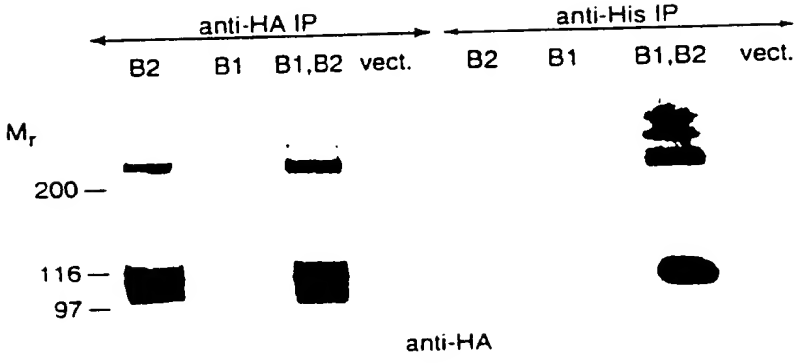


Figure 18B

Figure 18C



Silver grain density:

FIGURE 19A

FIGURE 19B

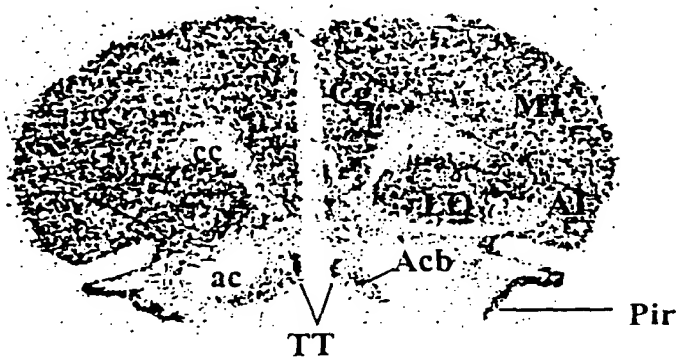


FIGURE 19C

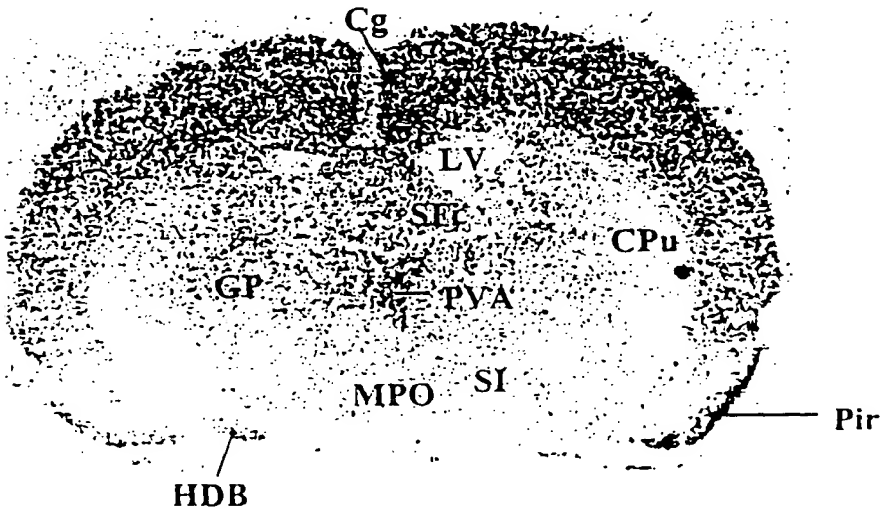


FIGURE 19D

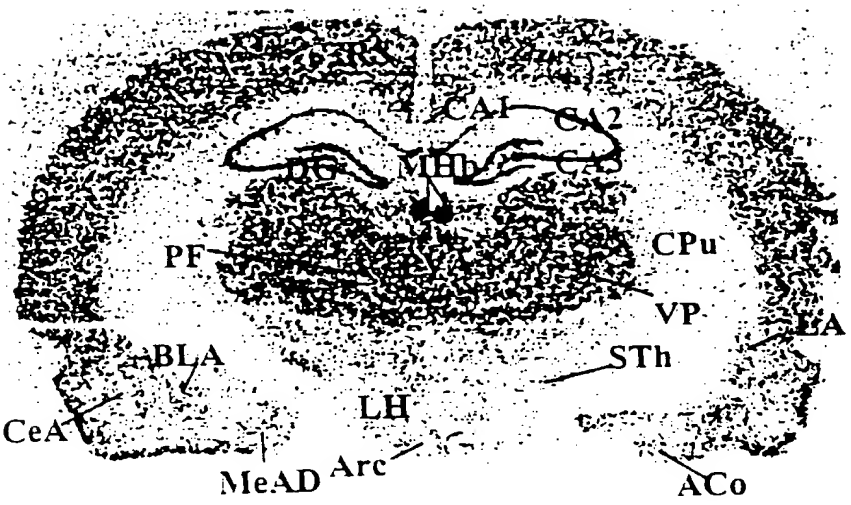


FIGURE 19E

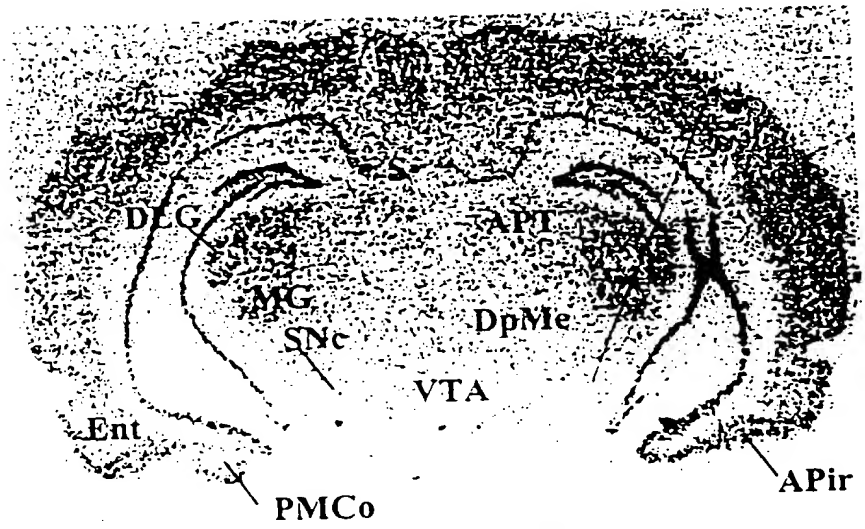


FIGURE 19F

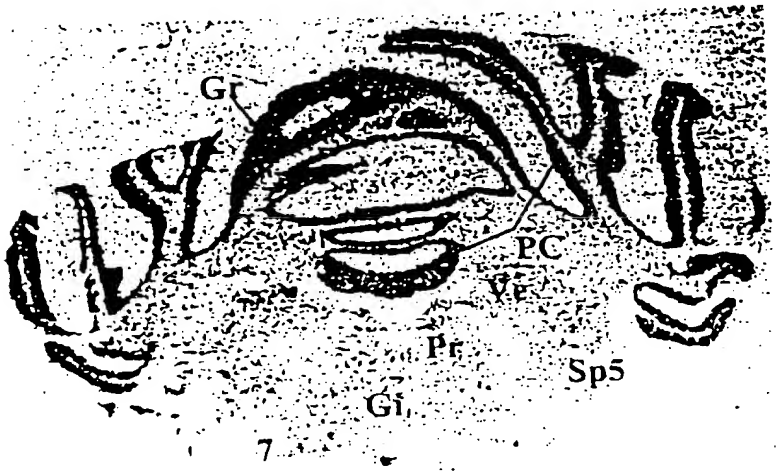


FIGURE 19G

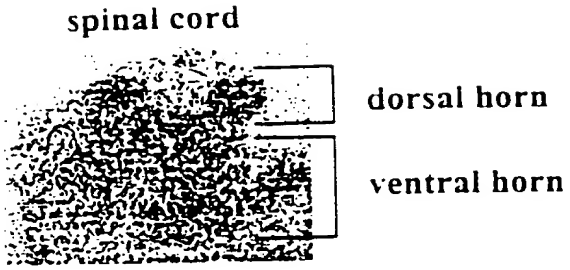


FIGURE 19H

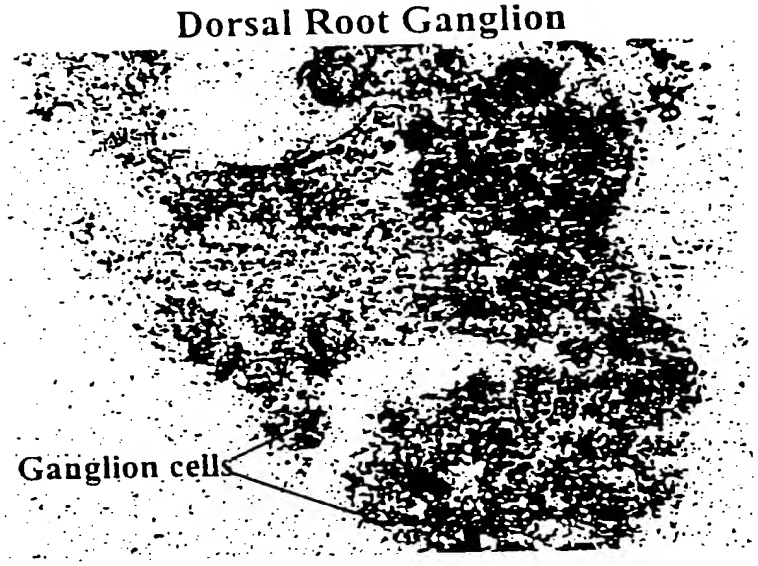


FIGURE 19I

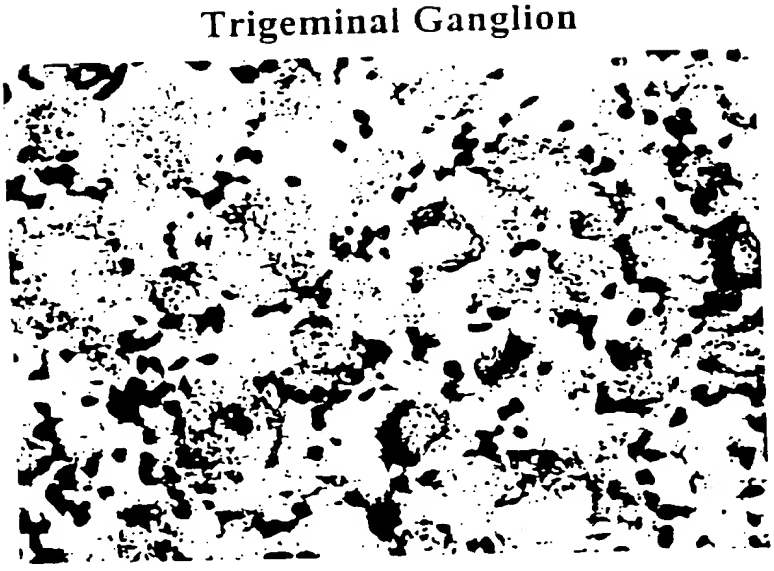


Figure 20A

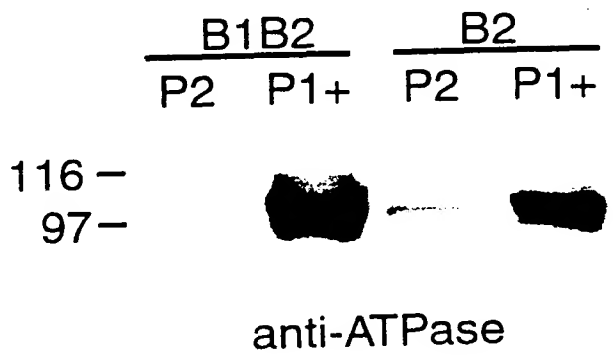


Figure 20B

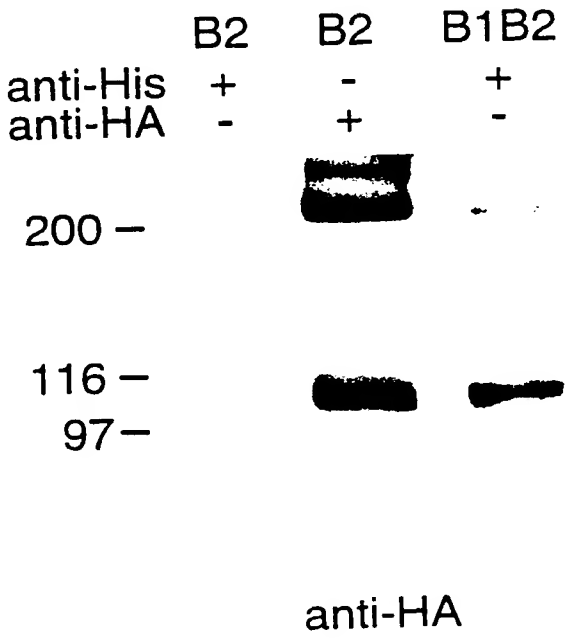


Figure 20C

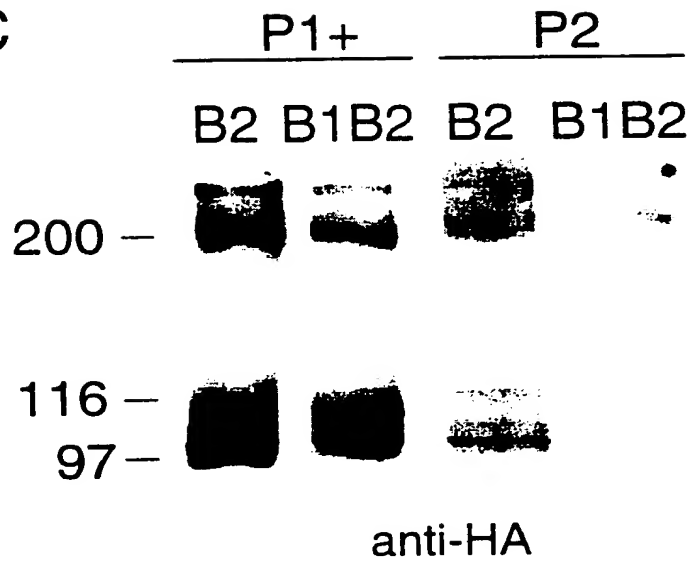


Figure 21A

Figure 21B

Figure 21C

Figure 21D

Figure 21E

Figure 21F

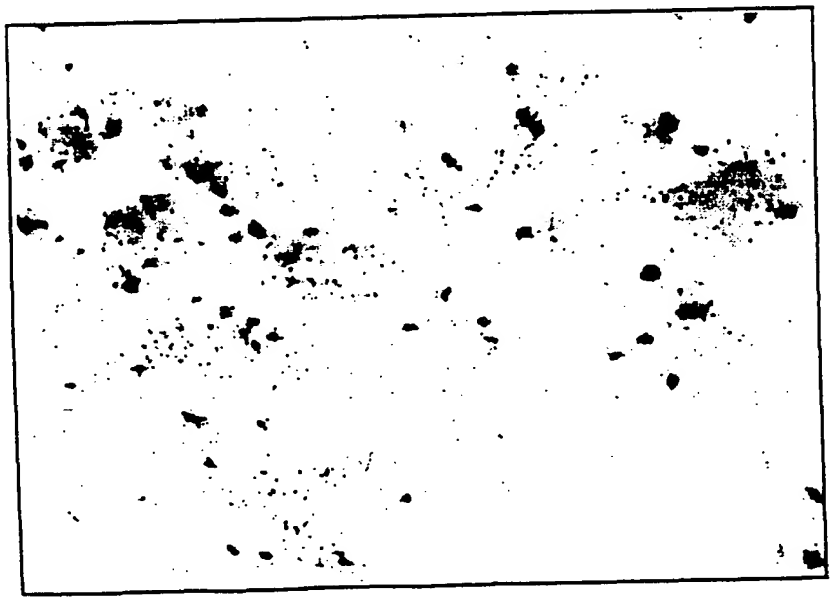


FIGURE 22A

1	ATGGCTTCCCCGCGGAGCTCCGGGCAGCCCGGGCCGCCGCCGCCGCCACCGCCGCCC	60
61	GCGCGCCTGCTACTGCTACTGCTGCCGCTGCTGCCTCTGGCGCCCGGGGCCTGG	120
121	GGCTGGGCGCGGGGCGCCCCCCGGCCGCCGCCCAGCAGCCCGCCGCTCTCCATCATGGGC	180
181	CTCATGCCGCTCACCAAGGAGGTGGCCAAGGGCAGCATCGGGCGCGGTGTGCTCCCCGCC	240
241	GTGGAACTGGCCATCGAGCAGATCCGCAACGAGTCACTCCTGCGCCCCTACTTCCTCGAC	300
301	CTGCGGCTCTATGACACGGAGTGCGACAACGCAAAAGGGTTGAAAGCCTTCTACGATGCG	360
361	ATAAAATACGGGCCGAACCACTTGATGGTGTTTGGAGGCGTCTGTCCATCCGTCACATCC	420
421	ATCATTGCAGAGTCCCTCCAAGGCTGGAATCTGGTGCAGCTTTCTTTTGCTGCAACCACG	480
481	CCTGTTCTAGCCGATAAGAAAAAATACCCTTATTTCTTTCGGACCGTCCCATCAGACAAT	540
541	GCGGTGAATCCAGCCATTCTGAAGTTGCTCAAGCACTACCAGTGGAAGCGCGTGGGCACG	600
601	CTGACGCAAGACGTTCAGAGGTTCTCTGAGGTGCGGAATGACCTGACTGGAGTTCTGTAT	660
661	GGCGAGGACATTGAGATTTCAGACACCGAGAGCTTCTCCAACGATCCCTGTACCAGTGTC	720
721	AAAAAGCTGAAGGGGAATGATGTGCGGATCATCCTTGGCCAGTTTGACCAGAATATGGCA	780
781	GCAAAAGTGTTCTGTTGTGCATACGAGGAGAACATGTATGGTAGTAAATATCAGTGGATC	840

FIGURE 22B

```
 841  ATTCCGGGCTGGTACGAGCCTTCTTGGTGGGAGCAGGTGCACACGGAAGCCAACTCATCC   900
 901  CGCTGCCTCCGGAAGAATCTGCTTGCTGCCATGGAGGGCTACATTGGCGTGGATTTCGAG   960
 961  CCCCTGAGCTCCAAGCAGATCAAGACCATCTCAGGAAAGACTCCACAGCAGTATGAGAGA  1020
1021  GAGTACAACAACAAGCGGTCAGGCGTGGGGCCCAGCAAGTTCCACGGGTACGCCTACGAT  1080
1081  GGCATCTGGGTCATCGCCAAGACACTGCAGAGGGCCATGGAGACACTGCATGCCAGCAGC  1140
1141  CGGCACCAGCGGATCCAGGACTTCAACTACACGGACCACACGCTGGGCAGGATCATCCTC  1200
1201  AATGCCATGAACGAGACCAACTTCTTCGGGGTCACGGGTCAAGTTGTATTCCGGAATGGG  1260
1261  GAGAGAATGGGGACCATTAAATTTACTCAATTTCAAGACAGCAGGGAGGTGAAGGTGGGA  1320
1321  GAGTACAACGCTGTGGCCGACACACTGGAGATCATCAATGACACCATCAGGTTCCAAGGA  1380
1381  TCCGAACCACCAAAAGACAAGACCATCATCCTGGAGCAGCTGCGGAAGATCTCCCTACCT  1440
1441  CTCTACAGCATCCTCTCTGCCCTCACCATCCTCGGGATGATCATGGCCAGTGCTTTTCTC  1500
1501  TTCTTCAACATCAAGAACCGGAATCAGAAGCTCATAAAGATGTCGAGTCCATACATGAAC  1560
1561  AACCTTATCATCCTTGGAGGGATGCTTTCCTATGCTTCCATATTTCTCTTTGGCCTTGAT  1620
1621  GGATCCTTTGTCTCTGAAAAGACCTTTGAAACACTTTGCACCGTCAGGACCTGGATTCTC  1680
```

FIGURE 22C

1681	ACCGTGGGCTACACGACCGCTTTTGGGGCCATGTTTGCAAAGACCTGGAGAGTCCACGCC	1740
1741	ATCTTCAAAAATGTGAAAATGAAGAAGAAGATCATCAAGGACCAGAAACTGCTTGTGATC	1800
1801	GTGGGGGGCATGCTGCTGATCGACCTGTGTATCCTGATCTGCTGGCAGGCTGTGGACCCC	1860
1861	CTGCGAAGGACAGTGGAGAAGTACAGCATGGAGCCGGACCCAGCAGGACGGGATATCTCC	1920
1921	ATCCGCCCTCTCCTGGAGCACTGTGAGAACACCCATATGACCATCTGGCTTGGCATCGTC	1980
1981	TATGCCTACAAGGGACTTCTCATGTTGTTCGGTTGTTTCTTAGCTTGGGAGACCCGCAAC	2040
2041	GTCAGCATCCCCGCACTCAACGACAGCAAGTACATCGGGATGAGTGTCTACAACGTGGGG	2100
2101	ATCATGTGCATCATCGGGGCCGCTGTCTCCTTCCTGACCCGGGACCAGCCCAATGTGCAG	2160
2161	TTCTGCATCGTGGCTCTGGTCATCATCTTCTGCAGCACCATCACCCTCTGCCTGGTATTC	2220
2221	GTGCCGAAGCTCATCACCCTGAGAACAAACCCAGATGCAGCAACGCAGAACAGGCGATTC	2280
2281	CAGTTCACTCAGAATCAGAAGAAAGAAGATTCTAAAACGTCCACCTCGGTCACCAGTGTG	2340
2341	AACCAAGCCAGCACATCCCGCCTGGAGGGCCTACAGTCAGAAAACCATCGCCTGCGAATG	2400
2401	AAGATCACAGAGCTGGATAAAGACTTGGAAGAGGTCACCATGCAGCTGCAGGACACACCA	2460
2461	GAAAAGACCACCTACATTAAACAGAACCACTACCAAGAGCTCAATGACATCCTCAACCTG	2520

FIGURE 22D

```
2521  GGAAACTTCACTGAGAGCACAGATGGAGGAAAGGCCATTTTAAAAAATCACCTCGATCAA  2580
2581  AATCCCCAGCTACAGTGGAACACAACAGAGCCCTCTCGAACATGCAAAGATCCTATAGAA  2640
2641  GATATAAACTCTCCAGAACACATCCAGCGTCGGCTGTCCCTCCAGCTCCCCATCCTCCAC  2700
2701  CACGCCTACCTCCCATCCATCGGAGGCGTGGACGCCAGCTGTGTCAGCCCCTGCGTCAGC  2760
2761  CCCACCGCCAGCCCCCGCCACAGACATGTGCCACCCTCCTTCCGAGTCATGGTCTCGGGC  2820
2821  CTGTAA                                                        2826
```

FIGURE 23A

1	M	A	S	P	R	S	S	G	Q	P	G	P	P	P	P	P	P	P	P	20
21	A	R	L	L	L	L	L	L	L	P	L	L	L	P	L	A	P	G	A	W	40
41	G	W	A	R	G	A	P	R	P	P	P	S	S	P	P	L	S	I	M	G	60
61	L	M	P	L	T	K	E	V	A	K	G	S	I	G	R	G	V	L	P	A	80
81	V	E	L	A	I	E	Q	I	R	N	E	S	L	L	R	P	Y	F	L	D	100
101	L	R	L	Y	D	T	E	C	D	N	A	K	G	L	K	A	F	Y	D	A	120
121	I	K	Y	G	P	N	H	L	M	V	F	G	G	V	C	P	S	V	T	S	140
141	I	I	A	E	S	L	Q	G	W	N	L	V	Q	L	S	F	A	A	T	T	160
161	P	V	L	A	D	K	K	K	Y	P	Y	F	F	R	T	V	P	S	D	N	180
181	A	V	N	P	A	I	L	K	L	L	K	H	Y	Q	W	K	R	V	G	T	200
201	L	T	Q	D	V	Q	R	F	S	E	V	R	N	D	L	T	G	V	L	Y	220
221	G	E	D	I	E	I	S	D	T	E	S	F	S	N	D	P	C	T	S	V	240
241	K	K	L	K	G	N	D	V	R	I	I	L	G	Q	F	D	Q	N	M	A	260
261	A	K	V	F	C	C	A	Y	E	E	N	M	Y	G	S	K	Y	Q	W	I	280

FIGURE 23B

281	I	P	G	W	Y	E	P	S	W	W	E	Q	V	H	T	E	A	N	S	S	300
301	R	C	L	R	K	N	L	L	A	A	M	E	G	Y	I	G	V	D	F	E	320
321	P	L	S	S	K	Q	I	K	T	I	S	G	K	T	P	Q	Q	Y	E	R	340
341	E	Y	N	N	K	R	S	G	V	G	P	S	K	F	H	G	Y	A	Y	D	360
361	G	I	W	V	I	A	K	T	L	Q	R	A	M	E	T	L	H	A	S	S	380
381	R	H	Q	R	I	Q	D	F	N	Y	T	D	H	T	L	G	R	I	I	L	400
401	N	A	M	N	E	T	N	F	F	G	V	T	G	Q	V	V	F	R	N	G	420
421	E	R	M	G	T	I	K	F	T	Q	F	Q	D	S	R	E	V	K	V	G	440
441	E	Y	N	A	V	A	D	T	L	E	I	I	N	D	T	I	R	F	Q	G	460
461	S	E	P	P	K	D	K	T	I	I	L	E	Q	L	R	K	I	S	L	P	480
481	L	Y	S	I	L	S	A	L	T	I	L	G	M	I	M	A	S	A	F	L	500
501	F	F	N	I	K	N	R	N	Q	K	L	I	K	M	S	S	P	Y	M	N	520
521	N	L	I	I	L	G	G	M	L	S	Y	A	S	I	F	L	F	G	L	D	540
541	G	S	F	V	S	E	K	T	F	E	T	L	C	T	V	R	T	W	I	L	560

FIGURE 23C

561	T	V	G	Y	T	T	A	F	G	A	M	F	A	K	T	W	R	V	H	A	580
581	I	F	K	N	V	K	M	K	K	K	I	I	K	D	Q	K	L	L	V	I	600
601	V	G	G	M	L	L	I	D	L	C	I	L	I	C	W	Q	A	V	D	P	620
621	L	R	R	T	V	E	K	Y	S	M	E	P	D	P	A	G	R	D	I	S	640
641	I	R	P	L	L	E	H	C	E	N	T	H	M	T	I	W	L	G	I	V	660
661	Y	A	Y	K	G	L	L	M	L	F	G	C	F	L	A	W	E	T	R	N	680
681	V	S	I	P	A	L	N	D	S	K	Y	I	G	M	S	V	Y	N	V	G	700
701	I	M	C	I	I	G	A	A	V	S	F	L	T	R	D	Q	P	N	V	Q	720
721	F	C	I	V	A	L	V	I	I	F	C	S	T	I	T	L	C	L	V	F	740
741	V	P	K	L	I	T	L	R	T	N	P	D	A	A	T	Q	N	R	R	F	760
761	Q	F	T	Q	N	Q	K	K	E	D	S	K	T	S	T	S	V	T	S	V	780
781	N	Q	A	S	T	S	R	L	E	G	L	Q	S	E	N	H	R	L	R	M	800
801	K	I	T	E	L	D	K	D	L	E	E	V	T	M	Q	L	Q	D	T	P	820
821	E	K	T	T	Y	I	K	Q	N	H	Y	Q	E	L	N	D	I	L	N	L	840

FIGURE 23D

841	G	N	F	T	E	S	T	D	G	G	K	A	I	L	K	N	H	L	D	Q	860
861	N	P	Q	L	Q	W	N	T	T	E	P	S	R	T	C	K	D	P	I	E	880
881	D	I	N	S	P	E	H	I	Q	R	R	L	S	L	Q	L	P	I	L	H	900
901	H	A	Y	L	P	S	I	G	G	V	D	A	S	C	V	S	P	C	V	S	920
921	P	T	A	S	P	R	H	R	H	V	P	P	S	F	R	V	M	V	S	G	940
941	L																				941